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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,608	11/20/2003	Yoshihisa Mizumoto	2927-0158P	7143

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EXAMINER	
LE, HUNG CHARLIE	

ART UNIT	PAPER NUMBER
3725	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,608	MIZUMOTO, YOSHIHISA	
	Examiner	Art Unit	
	Hung C. Le	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 -16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/20/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

In "DETAIL DESCRIPTION OF THE PREFERRED EMBODIMENTS"":

In Page 30, Lines 13 – 18: "....ions and contains the fff or the calcium carbonate treated....".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 & 2 are rejected under 35 U. S. C. 103 (a) as being unpatentable over Hashimoto et al. (US 6,648,807 B2) in view of Matsunaga et al. (US 6,653,038 B2).

With regard to claims 1 and 2:

Hashimoto et al. discloses: A conductive rubber roller comprising:

a conductive support; and a rubber layer; wherein said rubber layer includes: a component (A), an epichlorohydrin rubber containing 48 mole % or more of ethylene oxide; and a component (B), an acrylonitrile butadiene rubber having an acrylonitrile content of 20% by weight or less; Wherein said component (A) is present in a proportion in a range of 5 or more to less than 25 in weight ratio, based on a total weight of said component (A) and (B). (See Col 9, Lines 37 – 50)

Matsunaga et al. discloses: "....the present invention is characterized by a dielectric loss tangent (tanδ) characteristic as measured at a frequency of 100Hz showing a maximum (tan δ max) of 2.5 x 10^-2 to 8x10^-2 in a temperature range of 100 to 130° C...." (See Col 6, Lines 30 – 42)

The examiner does notice the temperature range of 23°C to 24°C (room temperature) used to measure the dielectric loss tangent as shown in Fig. 3 of the invention (Page 28, Lines 19 – 23).

Hashimoto discloses the claimed invention except for dielectric loss tangent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the dielectric loss tangent, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (In re Aller, 105 USPQ 233).

Hashimoto further discloses: " As a method of regulating its electrical resistance, carbon black may be added..." (See Col 2, Lines 10 – 13).

Claims 3, 4, 13, 14, 15 & 16 are rejected under 35 U. S. C. 103(a) as being unpatentable over Hashimoto et al. (US 6,648,807 B2) in view of Matsunaga et al. (US 6,653,038 B2) and Yamazaki et al. (US 6,480,692 B2).

With regard to claims 3, 4, 13, 14, 15, 16:

Hashimoto et al. (US 6,648,807 B2) and Matsunaga et al. (US 6,653,038 B2) disclose as stated above.

Yamazaki et al. discloses: " ...a difference between the electric resistance of the toner supply roller and the electrical resistance of the developing roller is at least 0.5 expressed in terms of common logarithmic value thereof (Ω)." (See Col. 21, Lines 12 – 15).

Yamazaki et al. also discloses: "...an electroconductive developing roller positioned to develop an electrostatic latent image on the photosensitive body with the toner and having an electric resistance in a range between 1x10^6.5 and 1x10^11 (Ω);..." (See Col 21, Lines 3 – 6)

Because the references are from a similar art, it would have been obvious to one having ordinary skill in the art to combine the teachings from the references at the time of the invention.

Claims 5, 6, 9 & 10 are rejected under 35 U. S. C. 103(a) as being unpatentable over Hashimoto et al. (US 6,648,807 B2) in view of Matsunaga et al. (US

6,653,038 B2) and Hong et al. (US 2004/0010069 A1).

With regard to claims 5, 6, 9 & 10:

Hashimoto et al. (US 6, 648,807 B2) and Matsunaga et al. (US 6,653,038 B2) disclose as stated above.

Hong et al. (US 2004/0010069 A1) discloses: "...The carbon blacks are ordinarily incorporated into the rubber composition in amounts ranging from about 10 to about 100 phr, preferably from about 30 to about 90 phr and most preferably from about 45 to about 85 phr." (See Par [0015], p. 2)

Because the references are from a similar art, it would have been obvious to one having ordinary skill in the art to combine the teachings from the references at the time of the invention.

Claims 7, 8, 11 & 12 are rejected under 35 U. S. C. 103(a) as being unpatentable over Hashimoto et al. (US 6,648,807 B2) in view of Matsunaga et al. (US 6,653,038 B2), Yamazaki et al. (US 6,480,692 B2) and Hong et al. (US 2004/0010069 A1).

With regard to claims 7, 8, 11 & 12:

Hashimoto et al. (US 6,648,807 B2), Matsunaga et al (US 6,653,038 B2), Yamazaki et al (US 6,480,692 B2) and Hong et al. (US 2004/0010069 A1) disclose as stated above.

Hong et al. further discloses: "[0022] Examples of other fillers that can be incorporated into the rubber compositions of the present invention with the carbon black fillers include, but are not limited to, general inorganic fillers, e.g., calcium carbonate,..." (See Par. 0022, Page 3)

Because the references are from a similar art, it would have been obvious to one having ordinary skill in the art to combine the teachings from the references at the time of the invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung C. Le whose telephone number is 571 -272-8757. The examiner can normally be reached on M-F: 08:00am - 05:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair

-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll -free).

HCL
5/18/05

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